

Tobacco Dependence and Abuse: a serious disease that is killing Michigan Residents

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A Clinical Practice Guideline for Treating Tobacco Use and Dependence: 2008 Update

- A highly significant health threat
- A disinclination among clinicians to intervene consistently
- Presence of effective interventions

direct quote from Update Panel, Liaison,
and Staff from the Clinical Practice
Guideline Treating Tobacco Use and
Dependence, 2008Source: Center for
Disease Control and Prevention

High-Priority, Low-Use Services

Short Name	Total Score	National Delivery Rate
Tobacco Cessation Counseling	10	35%
Colorectal Cancer Screening	8	35%
Pneumococcal Immunization – adults	8	56%
Chlamydia Screening	6	40%
Aspirin Chemoprophylaxis	10	50%
Vision Screening – adults	8	50%
Problem Drinking Screening	8	50%

Cost Effectiveness

- Tobacco use treatment is more cost-effective than other commonly provided clinical preventive services, including mammography, colon cancer screening, Pap tests, treatment of mild to moderate hypertension, and treatment of high cholesterol.⁵
- One study estimates that cost savings of between \$1142 and \$1358 per pregnancy can be achieved for each pregnant smoker who quits. (Miller, D P, et al, Nicotine and Tobacco Research 3(1) 25-35, February 2001)

Smoking reduces life expectancy an average of about 14 years by way of lung cancer, heart disease other illnesses, according to the CDC.

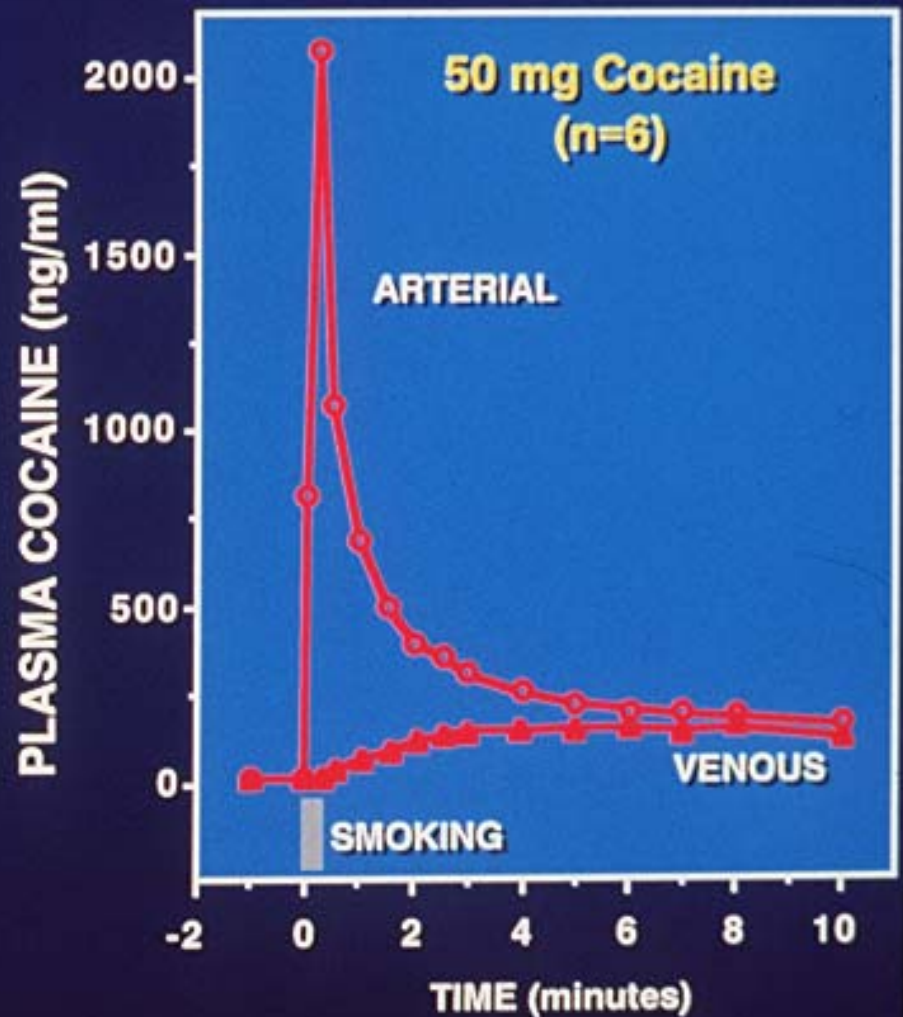
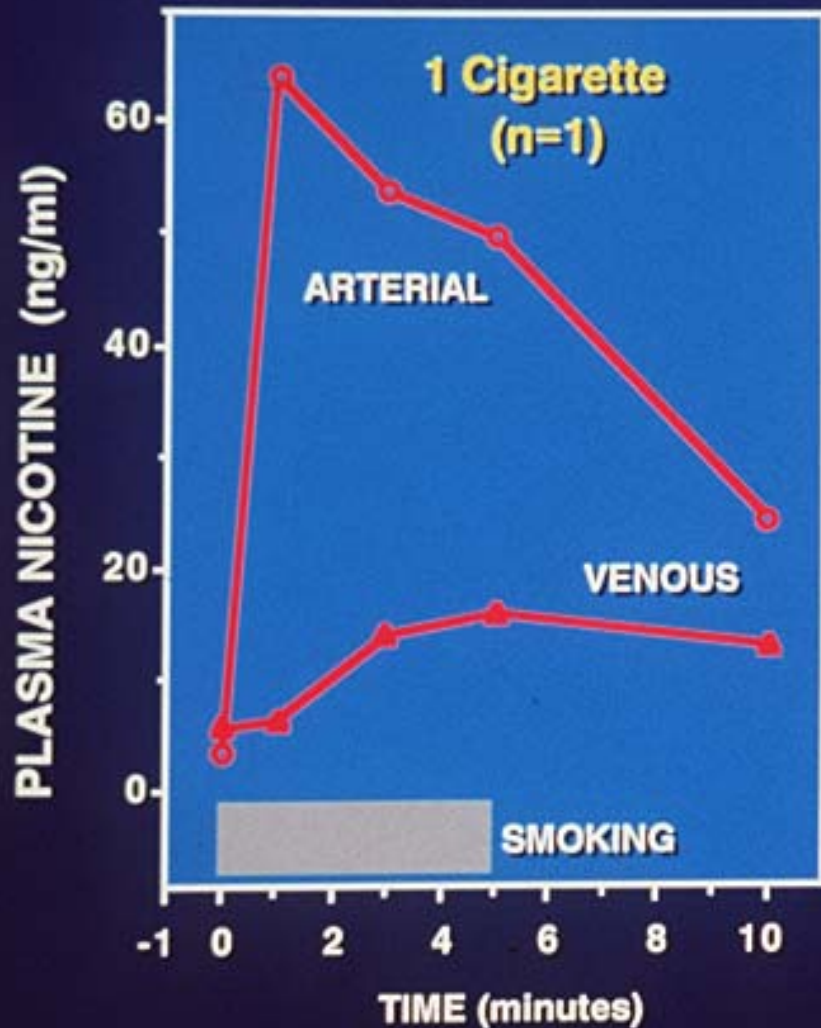
“No one has ever become a cigarette smoker by smoking cigarettes without nicotine”

--W.L. Dunn (Phillip Morris), 1972

Characteristics of an Addictive Drug

- The concentration of the drug achieved
- The rapidity with which that concentration is achieved
- The magnitude of the drugs effects
 - (How widespread the effects of the drug are on the organism)

Plasma Concentration after Smoking



Nicotine is a Drug of Addiction

After inhaling, nicotine reaches the brain in

7-10 seconds

- “Euphoria” without being “Stoned”
- Immediate REINFORCEMENT of drug-taking behavior
- Moment to moment titration of dose to achieve the desired effects

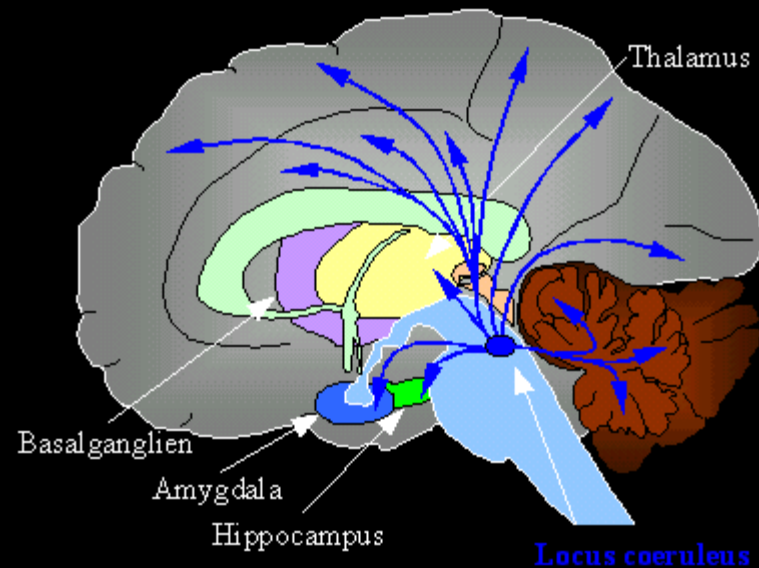
Nicotine's Effects on the Brain

The Reticular Activating System (RAS)

Locus Ceruleus

Generalized Cortical Activation/Arousal

Aminerges System: Noradrenalin ,hemmend



Alertness

Concentration

Memory

Problem Solving

Nicotine Withdrawal Symptoms

- Can be triggered with abrupt cessation of as few as 5 cigarettes/day
- Can begin within hours of cessation of smoking
- Peak: 1-4 days
- Diminish in intensity over 2-4 weeks
- Craving may persist intermittently for months to years

Tobacco Dependence: A Chronic Disease

Similar to diabetes, heart failure, hypertension, hyperlipidemia

- Expectation for remission and relapse
- Provide ongoing treatment:
 - advice/counseling
 - support
 - appropriate pharmacotherapy

Tobacco Dependence: A Chronic Disease

- There is a spectrum of disease severity
- Effective treatments are available
- High dose and multi-drug regimens may be necessary to achieve the target goals
- May require referral to specialists
- Individualized therapy is important

What Can my Clinic Do?



Screening

- Implement an office-wide system that ensures that for *every* patient at **every** clinic visit, tobacco-use status is queried and documented.

Training

- Health care systems should ensure that clinicians have sufficient training to treat tobacco dependence, clinicians and patients have resources, and clinicians are given feedback about their tobacco dependence treatment practices.

Training Resources

- www.michigan.gov/tobacco

Michigan Department of Community Health

- <http://www.michigancancer.org/WhatWeDo/tob-providerstoolkit.cfm>

- Michigan Cancer Consortium

- <http://www.ctri.wisc.edu/HC.Providers/healthcare.htm>

- University of Wisconsin



Upcoming Webinar:
Dr. Tim Baker on
Findings in the
*New England
Journal of Medicine*

**Treating Smokers in the Health Care Setting: New Evidence,
Strategies, and Clinical Recommendations**

Wednesday, October 26, 2011, 12:00-1:00 p.m.

Leadership

- Clinical sites should communicate to all staff the importance of intervening with tobacco users and should designate a staff person (e.g., nurse, medical assistant, or other clinician) to coordinate tobacco dependence treatments. Nonphysician personnel may serve as effective providers of tobacco dependence interventions.

The 5 “A” Intervention

- ASK about Tobacco Use
(Tobacco as a vital sign)
- ADVISE to stop
- ASSESS willingness to
make an attempt
- ASSIST in the stop
attempt
- ARRANGE for a
follow-up visit

“Not since the polio vaccine has this nation had a better opportunity to make a significant impact in public health.”

-- David Satcher, MD,MPH US
Surgeon General

Billing

- ICD-9 305.1 Tobacco Use Disorder
- CPT 99406
 - Intermediate: Smoking and tobacco-use cessation counseling visit (more than 3 minutes, up to 10 minutes)
- CPT99407
 - Intensive: Smoking and tobacco-use cessation counseling visit (more than 10 minutes)

Ask

- Systematically identify all tobacco users at every visit



Advise

- Strongly urge all tobacco users to quit
 - In a clear, strong, and personalized manner, urge every tobacco user to quit.
 - Clear – Important, cutting down not enough
 - Strong – Most important thing you can do to protect your health
 - Personalized – link to current healthy/illness, social and / or economic situations

Missed Opportunities

Commercial Rates	
Advising smokers to quit	76.7%
Discussing smoking cessation medications	54.4%
Discussing smoking cessation strategies	49.7%
Medicaid Rates	
Advising smokers to quit	69.3%
Discussing smoking cessation medications	40.6%
Discussing smoking cessation strategies	40.8%

Assess

- Determine willingness to make a quit attempt
 - Time
 - Participate in intensive treatment
 - Don't want to quit? – provide motivational intervention
 - Modify for special populations

Assist

- Aid the patient in quitting
 - Pharmacological – if not contra-indicated
 - Counseling
 - Problem solving
 - Skills training
 - Social Support
 - Intra-treatment social support
 - Extra-treatment social support

Withdrawal Symptoms

- Insomnia
- Restlessness
- Anxiety, Irritability, Frustration, Anger
- Difficulty concentrating
- Sad, Depressed mood
- Increased appetite



Withdrawal Symptoms

- Headache
- Mouth ulcers
- Nausea
- Constipation
- Diarrhea



Clinical Practice Guideline: Treating Tobacco Use and Dependence 2008 Update

New findings since the 2000 Update:

- 7 first-line medications and 2 second-line medications that have been proven effective.
- Stronger support for counseling as an effective treatment.
- Telephone quitline counseling is effective with diverse populations and has broad reach. Both clinicians and health care delivery systems should ensure patient access to quitlines and promote quitline use.

Guidelines for pharmacotherapy

- Seven first line FDA approved pharmacotherapies
 - Bupropion SR
 - Chantix (Varenicline)
 - Nicotine Gum
 - Nicotine Inhaler
 - Nicotine Nasal Spray
 - Nicotine Patch
 - Nicotine Lozengers

Guidelines for pharmacotherapy

- Second line Pharmacotherapies
 - Clonidine
 - Oral
 - Transdermal
 - Nortriptyline
- Lighter smokers - lower NRT
 - 10-15 cigarettes/day
 - no adjustment for bupropion

New Therapies in the Pipeline

- Sublingual Nicotine (available in Europe)
- Rimonabant – a cannabinoid receptor agonist
- Nicotine Vaccines (NicVAX and TA-NIC)

Varenicline

- Market name Chantix®
- Non-nicotine tobacco cessation aid
- Monotherapy
- Partial agonist/antagonist
 - Increases the brain's response to nicotine
 - Blocks the brain's natural response to nicotine
- Begin treatment 7-10 days before quit date
- Dosing: 0.5 mg daily for three days, then 0.5 mg BID for four days, then 1 mg BID

Bupropion Hydrochloride

- Marketed Wellbutrin® (anti-depressant), Zyban® (smoking cessation aid)
- Similar effects on brain as nicotine (60% people) – mechanism unknown
- Rx
- Begin 7-10 days before quit date
- 3-6 days 150mg; 150mg bid
- Contraindications: Seizure disorder, active eating disorder, recent MI, unstable angina, MAOs

Possible Side Effects for all Nicotine Replacement products

Dizziness

Nausea

Headaches

NRT Indicators

- Anyone who smokes > 10 cigarettes per day
- Anyone who reports withdrawal symptoms during a past quit attempt
- Each quit attempt is different so okay to try same medication again – motivation may have shifted
- All NRTs are better than placebo

Rationale for Nicotine Replacement

- Prevention/relief of nicotine withdrawal symptoms
- Allows patients time to develop strategies to avoid relapse
- Avoids the exposure to carcinogens in cigarette smoke
- Allows for controlled tapering of the nicotine
- Improves success of quitting

Nicotine in Tobacco Products

1 cigarette = 1-2mg (12 – 14 mg)

1 can spit tobacco = approx. 60 - 80mg

1 average size dip = approx. 3 - 5mg

1.5 ounce stogie = 12 – 24 mg the same as a one pack
cigarettes

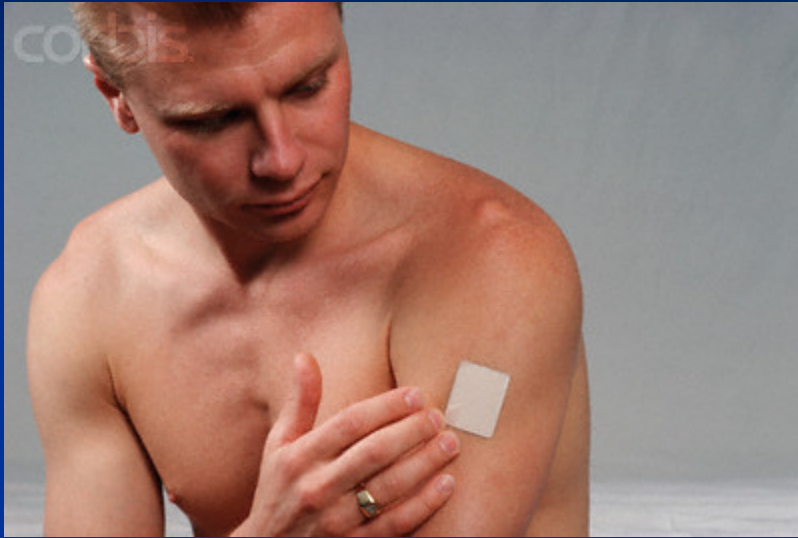
Nicotine Gum

- Nicotine absorbed in mucosa
- 2mg and 4mg doses
 - Insert recommendations < 25 cigarettes 2mg; >25 cigarettes 4mg
- Each piece is good for 20-30 minutes
- Chew gum until “peppery” taste; “park” between gum and cheek until peppery taste is gone, repeat process

Nicotine Lozenge

- Nicotine is absorbed from mucosal
- Lozenge dissolves while between cheek and gum
- User must not suck, chew or swallow lozenge
- 2mg and 4mg strengths –
 - Package recommendation:
 - < 24 cigarettes - 2 mg lozenge
 - 1st cigarette >30min after waking
 - >24 cigarettes - 4mg lozenge
 - 1st cigarette <30min after waking
- Use up to 20 lozenges per day – no more than 5 in one hour

Nicotine Patch



- Six dosages: 21mg, 14mg, 7mg, 15mg, 10mg, 5mg
- OTC
- 16-24 hour doses
- Place on non-hairy area above the waist



Nicotine Patch Therapy

Initial Dosing Based on Smoking Rate

Mayo Clinic Model

<10 cpd	7-14 mg/d
10-20 cpd	14-22 mg/d
21-40 cpd	22-44 mg/d
>40 cpd	44+ mg/d

Nicotine Spray



- Nicotine absorbed through nasal mucosa
- 1 spray to each nostril after exhale - **SHOULD NOT BE INHALED**
- Not recommended for patients with asthma, nasal allergies, sinusitis
- Each bottle contains 100 doses (200 sprays)
- Recommend to not be use more than 5 times an hour or 40 times in 24 hours

Nicotine Inhaler

- Absorbed in mucosa
- Mouthpiece with 10mg cartridge
- User “sucks” on mouthpiece to deliver nicotine – use like a straw
- Each cartridge good for 80 puffs or 20 minutes
- Minimum use 6 cartridges, maximum 16 cartridges per day
- No food or drink within 15 minutes of use
- Does not work well in cold air <40 degrees F



Assist: providing practical counseling

- Abstinence
- Review past quit experience
 - Success
 - Triggers for relapse
- Anticipate triggers, challenges
- Alcohol – can lead to relapse
- Other smokers – limit exposure

Individuals who may need more intensive therapy (more aggressive pharmacological therapy)

- Smoke more than a pack per day
- Smoke within 30 minutes of awakening
- Several withdrawal symptoms
- Early relapse
- History of psychiatric disorders
- Current or recovering dependence on alcohol or other drugs
- Presence of other smokers in the household

Arrange – schedule follow up

- Timing
 - Quit week
 - First 1 month
- Follow-up conversation



Michigan Quit Line

800-QUIT-NOW (784-8669)




Michigan Quit Line

Fax Referral Form for Health Care Providers

This document can be found at

<http://www.njhcommunity.org/michigan/misc/MI-Prov-Ref.pdf>



**TOBACCO
REDUCTION
AND
PREVENTION**

PATIENT FAX REFERRAL FORM Fax to: 1-800-361-6389

Today's Date _____

This fax form is only for patients who are ready to quit tobacco in the next 30 days in the Michigan Tobacco Quitline.

PROVIDER/PCP Complete this section

Provider Name _____	Contract Name _____
Child/Name/Last _____	Specialty _____
Address _____	Phone (____) _____
City/State/Zip _____	Fax (____) _____

Does patient have any of the following conditions? ☐ pregnant ☐ uncontrolled high blood pressure ☐ heart disease

If you, please sign to authorize the Michigan Tobacco Quitline to send the patient fax, over the number on the replacement form, if available. If provider does not sign and the patient has any of the above listed conditions, the Michigan Tobacco Quitline cannot deliver materials.

Provider Signature _____

Please Check: ☐ Patient agreed with decision to be referred to the Michigan Tobacco Quitline.

PATIENT/PCP Complete this section

☐ Yes, I am ready to quit and call the tobacco quitline each call me. I understand that the Michigan Tobacco Quitline will inform my provider about my participation.

Best time to call? ☐ Morning ☐ Afternoon ☐ Evening ☐ Weekend

May we leave a message? ☐ Yes ☐ No

Are you having hospital and/or medical problems? ☐ Yes ☐ No

State of Birth _____ / _____ / _____ Gender ☐ M ☐ F

Address Name/Last _____	City _____	State _____
Address _____	City _____	State _____
Zip Code _____	E-mail _____	
Phone #1 (____) _____	Phone #2 (____) _____	
Language <input type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> Other _____		

Patient Signature _____ Date _____

PLEASE FAX TO: 1-800-361-6389

Send to: Michigan Tobacco Quitline, c/o National Jewish Health, 1400 Jackson St., R1175, Denver, CO 80202

Confidentiality Notice: This form contains confidential information. If you have received this in error, please notify the sender immediately by telephone and confidentially dispose of the material (do not return, destroy, copy or distribute).



Questions???



Special Thanks to Dr. Lowell
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Patients not ready to quit

- **RELEVANCE:** Tailor Advice and discussion to each patient
- **RISKS:** Outline risks of continued smoking
- **REWARDS:** Outline benefits of stopping
- **ROAD BLOCKS:** Identify barriers
- **REPETITION:** Reinforce the motivational message at each visit

